

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A magnetoresistive speed sensor comprising a permanent magnet and a magnetic field detecting sensor for detecting the speed of an object rotating about an x-axis, wherein the magnetoresistive speed sensor has a measuring direction, characterized in that the measuring direction is aligned parallel with the x-direction, and two magnetic field detecting sensors are disposed on a y-axis essentially in the direction of the movement of the nearest portion of the object at a distance from one another and perpendicular to the measuring direction, wherein each of the two magnetic field detecting sensors generates an output signal.
2. (previously presented) A magnetoresistive speed sensor as claimed in claim 1, characterized in that the magnetic field detecting sensors are disposed symmetrically in relation to the x-axis on the y-axis.
3. (previously presented) A magnetoresistive speed sensor as claimed in claim 1, characterized in that each of the magnetic field detecting sensors is a Wheatstone bridge.
4. (previously presented) A magnetoresistive speed sensor as claimed in claim 1, characterized in that each of the magnetic field detecting sensors is a half bridge.
5. (previously presented) A magnetoresistive speed sensor as claimed in claim 1, characterized in that the permanent magnet has a magnetic field component in the x-direction.

6. (previously presented) A use of a magnetoresistive speed sensor as claimed in claim 1, in automotive engineering.
7. (previously presented) The use of a magnetoresistive speed sensor as recited in claim 6, wherein the automotive engineering includes at least one of the following: crankshaft speed monitoring, camshaft speed monitoring, or monitoring of an anti-lock braking (ABS) system.
8. (currently amended) A magnetoresistive speed sensor comprising a permanent magnet and a magnetic field detecting sensor for detecting the speed of an object rotating about an x-axis, wherein
the magnetoresistive speed sensor has a measuring direction, characterized in that the measuring direction is aligned parallel with the x-direction, and two magnetic field detecting sensors are disposed at a distance from one another symmetrically in relation to the x-axis on the y-axis and perpendicular to the measuring direction, wherein each of the two magnetic field detecting sensors generates an output signal.
9. (previously presented) The magnetoresistive speed sensor as recited in claim 8, wherein each of the magnetic field detecting sensors is a Wheatstone bridge.
10. (previously presented) The magnetoresistive speed sensor as recited in claim 8 wherein each of the magnetic field detecting sensors is a half bridge.
11. (previously presented) The magnetoresistive speed as recited in claim 8, wherein the permanent magnet has a magnetic field component in the x-direction.
12. (previously presented) The magnetoresistive speed as recited in claim 9, wherein the permanent magnet has a magnetic field component in the x-direction.
13. (previously presented) The magnetoresistive speed as recited in claim 10, wherein the permanent magnet has a magnetic field component in the x-direction.

14. (currently amended) A magnetoresistive speed sensor comprising,
a permanent magnet having a magnetic field component in the x-direction; and
a magnetic field detecting sensor for detecting the speed of an object rotating
about an x-axis, the magnetic field detecting sensor being a Wheatstone bridge, wherein
the magnetoresistive speed sensor has a measuring direction, characterized in that
the measuring direction is aligned parallel with the x-direction, and two magnetic field
detecting sensors are disposed at a distance from one another symmetrically in relation to
the x-axis on the y-axis and perpendicular to the measuring direction, wherein each of the
two magnetic field detecting sensors generates an output signal.

15. (new) The magnetoresistive speed sensor as claimed in claim 1, wherein the
output signals from the two magnetic field detecting sensors comprise a first output
signal from a first magnetic field detecting sensor and a second output signal from a
second magnetic field detecting signal, and wherein the magnetoresistive speed sensor is
further configured to calculate a differential signal of the first and second magnetic field
detecting sensors based on the first and second output signals.

16. (new) The magnetoresistive speed sensor as claimed in claim 8, wherein the
output signals from the two magnetic field detecting sensors comprise a first output
signal from a first magnetic field detecting sensor and a second output signal from a
second magnetic field detecting signal, and wherein the magnetoresistive speed sensor is
further configured to calculate a differential signal of the first and second magnetic field
detecting sensors based on the first and second output signals.

17. (new) The magnetoresistive speed sensor as claimed in claim 14, wherein the
output signals from the two magnetic field detecting sensors comprise a first output
signal from a first magnetic field detecting sensor and a second output signal from a
second magnetic field detecting signal, and wherein the magnetoresistive speed sensor is
further configured to calculate a differential signal of the first and second magnetic field
detecting sensors based on the first and second output signals.